

REMARKS/ARGUMENTS

In the Office Action of February 23, 2004, the Examiner rejected claims 1-4 and 7-67. More specifically, claims 1-4, 7-60, and 67 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,404,088 to Barada et al., (hereinafter “Barada”) in view of U.S. Patent No. 6,215,218 to Ueyama, (hereinafter “Ueyama”); claims 61, 65, and 66 were rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 6,447,266 to Antaki et al., (hereinafter “Antaki”) in view of Barada; and claims 62-64 were rejected as being obvious over Antaki in view of Barada and Ueyama.

The Applicants thank the Examiner for the interview of May 17, 2004. During the interview, each of the 35 U.S.C. §103 rejections was discussed. It was agreed that the combination of Barada and Ueyama failed to teach every element of the claims, and thus, that the rejections based on this combination should be withdrawn. An agreement was also reached that the claims would be allowable if independent claims 1 and 19 were amended to state that axial displacements are stored. Claims 1 and 19 have been thus amended and are presented above. Claim 61 has been amended to incorporate the subject matter of claim 62. Accordingly, claims 1, 3, 19, 61, 63, and 64 have been amended, while claim 62 has been canceled. Thus, claims 1-4, 7-61, and 63-67 are presented as agreed in the interview.

Claim Rejections – 35 U.S.C. §103

The Examiner first rejected claims 1-4, 7-60, and 67 under 35 U.S.C. §103(a) as being unpatentable over Barada in view of Ueyama. It is well settled in patent law that a claim is not *prima facie* obvious under 35 U.S.C. §103(a) unless all of the limitations that are found in the claim are taught or suggested by the cited prior art references. *See* MPEP §2143.03. Since the combination of Barada and Ueyama fails to teach each of the elements of the claims as amended herein, they fail to support the 35 U.S.C. §103 rejection. As a result, the Applicant respectfully requests that this rejection be immediately withdrawn, and a suitable notice of allowance issued.

In the Office Action of February 23, 2004, the Examiner explained that “Barada does not disclose a means for storing a plurality of displacement output[s] and keeping the outputs in

memory” Ueyama is then cited as having a DSP board which “stores displacement and other information for further use” (Office Action, p. 3), citing specifically column 7, lines 33-67 and column 8, lines 1-3 of Ueyama. A close inspection of Ueyama in general, and the cited passages specifically, demonstrates that Ueyama does not disclose “storing a plurality of axial displacement outputs over a period of time; [and] adjusting the axial displacement output to account for a sensor offset estimated using stored axial displacement outputs to produce an adjusted axial displacement output” as claimed in the present application. *See* claim 1, *supra*. As a result, the combination of Barada and Ueyama fails to render the claims unpatentable, and this rejection should be withdrawn.

Ueyama discloses a control magnetic bearing capable of automatically identifying a mechanical main unit to which the control is attached. *See, e.g.*, column 1, lines 65-67. As such, it relies upon data such as multiple sets of control parameters stored in its memory to conduct the identification. The passage of Ueyama cited by the Examiner discusses the types of memory present in the control magnetic bearing of Ueyama and its contents. At most, Ueyama teaches retrieving sample control parameters from memory and/or utilizing such parameters. In contrast, the claimed invention includes methods for dynamically monitoring and adjusting the position of a movable body positioned in a magnetic bearing system using previously-stored axial displacement outputs received from the sensor of the device. Ueyama provides no teaching of storing axial displacement outputs in memory or of making adjustments to the axial displacement output to produce an adjusted output using such stored outputs. As a result, Ueyama fails to anticipate claims 1-4, 7-60, and 67, and this rejection should be withdrawn.

Claims 61, 65, and 66 were rejected under 35 U.S.C. §103(a) as being obvious over Antaki in view of Barada. In this paper, claim 61 was amended to incorporate the limitations of claim 62. Claim 62 was accordingly canceled. By incorporating “a computer comprising memory for storing and recalling sensor data” into claim 61, claims 61, 65, and 66 are brought under the 35 U.S.C. §103(a) rejection provided for claims 62-64, namely, being unpatentable over Antaki in view of Barada and Ueyama. The Examiner noted that as with the earlier §103(a) rejection, the combination of Antaki and Barada fails to disclose “a computer for controlling and storing data in operating the pump apparatus.” Office Action, p. 6. As with the previous rejection, Ueyama

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was cited to provide a computer. Since, however, as discussed above, Ueyama fails to teach “a computer comprising memory *for storing and recalling sensor data*,” (*emphasis added*) the combination of Antaki, Barada, and Ueyama fails to render claims 61-66 unpatentable under 35 U.S.C. §103(a). As a result, Applicant respectfully requests that this rejection be withdrawn.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case. If there are any remaining issues preventing allowance of the pending claims that may be clarified by telephone, the Examiner is requested to call the undersigned.

Respectfully submitted,



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